# PART XI. APPENDICES

A. Draft Designation Document
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Article 3. Special Characteristics of the Area

The Sanctuary contains a unique and vast array of tropical marine organisms, including corals and a diverse tropical reef ecosystem with endangered and threatened species, such as the hawksbill and green sea turtles, and marine mammals like the Pacific bottlenose dolphin. The area provides excetional scientific value as an ecological, recreational, and aesthetic resource and unique educational and recreational experiences.

Article 4. Scope of Regulation

Section 1. Activities Subject to Regulation. In order to protect the distinctive values of the Sanctuary, the following activities may be regulated within the Sanctuary to the extent necessary to ensure the protection and preservation of the coral and other marine values of the area:

a. Taking of otherwise damaging natural resources.

b. Discharging or depositing any substance.

c. Disturbing the benthic community.

d. Removing or othewise harming cultural or historical resources.

Section 2. Consistency with International Law. The regulations governing the activities listed in Section 1 of this Article will apply to foreign flag vessels and persons not citizens of the United States only to the extent consistent with recognized principles of international law, including treaties and international agreements to which the United States is signatory.

Section 3. Emergency Regulations. Where essential to prevent immediate, serious, and irreversible damage to the ecosystem of the area, activities other than those listed in Section 1 may be regulated within the limits

of the Act on an emergency basis for an interim period not to exceed 120 days, during which an appropriate amendment of this Article will be proposed in accordance with the procedures specified in Article 6.

Article 5. Relation to Other Regulatory Programs

Section 1. Other Programs. (a) NOAA may adopt all regulatory programs pertaining to fishing, including any regulations promulgated by the American Samoa Government and all permits, licenses, and other authorizations issued pursuant thereto under the following conditions:

(1) No alteration or modification of any Sanctuary regulation shall become effective without the written concurrence of both the Territory and NOAA; and

(2) The Territory shall be responsible for enforcing all the Sanctuary regulations to ensure protection for the values of the Sanctuary. NOAA will engage in enforcement activities only if requested by the Territory if there has been a significant failure to provide adequate enforcement as determined under this Section.

(b) Where the Territory shall propose any alteration or modification of the regulations described in Article 4, such alteration or modification shall be submitted to NOAA for agreement and simultaneous proposal in the Federal Register. Such alteration or modification shall be finally adopted unless, based on the comments received on the Federal Register notice and after consultation with the Territory, NOAA determines that the regulations with the proposed amendments do not provide reasonable and necessary protection for the values of the Sanctuary.

(c) Should NOAA preliminarily determine that there has been significant failure to provide adequate enforcement, it shall notify the Territory of this deficiency and suggest appropriate remedial action. If, after consultation, NOAA and the Territory are unable to agree that a deficiency

Comment: As both the nomination document and issue paper note, Fagatele Bay was infested by the crown-of-thorns starfish (Acanthaster planci) in late 1978. The result of this infestation is that only 10% of the Bay's coral species are presently living. To even the casual observer, this situation would appear to hold serious adverse consequences for the productivity of the Bay's biological resources. Defenders notes with surprise that not only does the DEIS not discuss these loss figures, but the initial discussion of the benthic community (pp. 13, 17) is almost misleading in describing the coral community as "highly productive" and [very diverse, with a wide variety of habitats supporting populations of larger fish..."] The only mention of the infestation is found at page 31, which does not indicate the extent of the damage or the currrent status of remaining coral species in the Bay. In the absence of such details, it is difficult to assess the resource value of the nomination itself.

Response: Before 1978, coral cover in Fagatele Bay was estimated to be nearly 100%. After the 1978 crown-of-thorns starfish infestation, coral cover, not coral species, was reduced to approximately 10%. NOAA agrees that this would appear to seriously damage the future productivity of the Bay's biological resources, However, even though coral are highly productive animals, biological productivity is also affected by algae, phytoplankton, surface runoffs, currents, and a myriad of other factors.

One of the distinctive features of coral communities is their ability to recover; and recent surveys conducted by NOAA ( 11/82, 1/84 ) and the American Samoa Office of Marine Resources indicate that both coral cover and number of coral species is increasing. Also found were increasing numbers of larger fish species and during the 1984 survey, a new family of fish was recorded for Fagatele Bay. All these occurences indicate that the Bay is recovering and biological productivity is increasing.

The discussions of the benthic community on pages 13 and 17 describe coral communities in general as being "highly productive" and "very diverse, with a wide variety of habitats supporting populations of larger fish..." and is not referring specifically to Fagatele Bay. What these statements do indicate, however, is the past and potential of the Bay. Although quantitative descriptions are lacking, qualitative descriptions of the Bay's state before 1978 indicate that it was one of the most biologically productive areas found in American Samoa. Given a chance to fully recover, the Bay should become as highly productive as it ever was.

Comment: Both the nomination document (p. 16) and the issue paper (p. 15) indicate the presence in the Bay area of several cetacean species which are not indicated as present in the DEIS.

These are:

Blue whale (Balaenoptera musculus)
Finback whale (Balaenoptera physalus)
Right whale (Balaena glacialis)
Sei whale (Balaenoptera borealis)

Are these species present or not? Although there is agreement among the three documents concerning the presence of humpback whales (Megatera novangeliae) and (more occasionally) sperm whales (Physeter catodon), there is no indication in the DEIS of the number or frequency of these endangered animals.

Response: After review of the Issue Paper, it was suggested by the National Marine Fisheries Service that the blue, finback, right, and sei whales be eliminated from the list of cetacean species present in the waters adjacent to Fagatele Bay. Humpback whales are annually spotted in the Bay and in the seaward waters. Sperm whales occasionally venture into the waters seaward of Fagatele Bay. However, the number and frequency of both species has not been studied.

Comment: The DEIS mentions briefly the importance of the Bay as a foraging area to the threatened green sea turtle (Chelsonia mydas) and the endangered hawksbill sea turtle (Eretmochelys imbricata) (p. 31). In addition, there are apparently occasional visits to the Bay by the threatened olive ridley (Lepidochelys olivacea) and loggerhead (Caretta caretta) sea turtles, as well as the endangered leatherback (Dermochelys coriacea). There is no discussion in the DEIS, however, of any nesting activity by green and hawksbill sea turtles. Although not thought to be "major" nesting sites for either of these species, there is some indication of nesting in the Tutuila Island area. The FEIS discussion of sea turtle presence should include this information, if specifically applicable to the proposal site. Additionally, if nesting beaches adjoining the site are documented, Defenders strongly urges that particular attention be paid to the protection of these areas, through existing regulations and the sanctuary's final management plan.

Response: Fagatele Bay does not present itself as a potential nesting site for most of the sea turtles because of the lack of sizeable beaches and the fact that the Bay's only beach does not possess the type of sand suitable for nesting. Some turtles do nest infrequently on other beaches around Tutuila, but none in the vicinity of Fagatele Bay.

Comment: As the DEIS makes clear, Fagatele Bay has been shielded thusfar from the adverse impacts of human activities solely by its inacessibility. The Bay is thus an ideal site for "systems" research and related educational opportunities. Defenders is particularly pleased to note the emphasis placed on the need to help residents (as well as visitors) understand the necessity for a healthy benthic community in order to sustain production of subsistence fishery resources.

With Sanctuary designation and management, however, the Bay will also provide for increased access by the public. There are several vague references in the DEIS to possible increases in non-consumptive activities in the future. Other than brief mention of the Bay's primary use as a traditional subsistence fishing area, there is no specified discussion in the DEIS of other current or anticipated human activities. If information is available on current and projected human activities, it should be clearly presented in the FEIS.

# APPENDIX C - CULTURAL INSTITUTIONS OF AMERICAN SAMOA

## A. THE MATAI SYSTEM

1. Introduction. Traditional Samoan society is organized upon a blending and combination of several principles. These include the principle of hereditary rank, the functions of relationship groups, and the rights and privileges of the organized village community. The social organization can be discussed as it is conceived in theory, but in reality it is subject to change and reinterpretation because of the personalities, geography, specific history or outside forces involved.

These cultural institutions are still the strongest single influence in American Samoa. They must, however, continually adapt to the external influences introduced by returning Samoans, television programs, movies, increased number of palagi (Caucasian or outsider), contract workers, and the large variety of consumer goods and products available to Samoans. The ceremonial functions to many of the cultural institutions have been modified to accommodate the normal working hours of employees or other social occasions. Samoan culture has a certain degree of flexibility that allows ceremonial and traditional customs to be modified to suit the current situation. There is a strong feeling among many Samoans that outside influences are causing the younger generation to become apathetic towards the matai system. The present impact of the younger generation on the matai system is not known, but it may have a great impact in the near future.

2. Traditional Structure.

a. Aiga (Family Unit) and Matai (Chief). The basic unit of Samoan society is the aiga, a word variously translated into English as "extended family," "family group," "patriarchy," or "clan." An aiga consists of a group of people related by blood, marriage, or adoption, varying in number from a few to 200, which acknowledge a common allegiance to a particular matai. The matai possesses authority over the members of his aiga and regulates their activities, whether in agriculture, fishing, or the reception of guests. Family resources are similarily under his direction. Traditionally, the matai consults the aiga before exercising his authority. Consultation and discussion is a highly developed practice at every level of Samoan society.

These family units create a close knit group with an intense local pride and a close community of interest. It is common for a Samoan, when asked to give a family name for identification, to give the name of his matai who may not be his biological or natural father.

b. The Fa'alupega. The village is a combination of hundreds of people in these various family units. Socially, each village is defined by its fa'alupega, which contains a highly formal greeting of its principal matais. The correct place and dignity are accorded to each; and the relationship of local matai titles to the broader lineage structure of Samoa is made explicit. The possession of such a fa'alupega is in effect, the required demonstration of a particular village's autonomy. It provides a conventional record of the village's history, in terms of kinship and social status, and defines the constitution of its fono (village council). The appropriate fa'alupega are recited on all formal occasions, such as the meeting of the fono or the reception of guests from another village. It is the pride and study of the orators to know them for the whole of Samoa. (O le Tusi Fa'alupego o Samoa, new edition, Malua, Western Samoa, 1958).

c. Village Fono (Council of Chiefs). The most important group in the village is the fono or council of chiefs, which is composed of the matai of the village, and is responsible for the general government of the village community. At a meeting of the fono, the members' seating positions are determined in accordance with the importance of the matai title which each holds. Each title is assigned a rank and a fixed place in an ideal circular plan, the fixed points of which correspond to the posts in a Samoan round house. Men holding the leading titles sit in front of particular posts, the other occupy the spaces between. This order also determines the right to speak.

When a matai of high title expresses an opinion, those of lesser standing cannot with propriety dissent. However, since a large proportion of villages possess several titles of higher standing than the rest, this convention does not commonly lead to the creation of autocracy. Moreover, the Samoan conception of leader as a spokesman for, and representative of the group, has created the habit of informal consultation. Even where this procedure is not used effectively, the Samoan convention of debate permits attitudes to be made clear without the open expression of disagreement. The relative rigidity of the social structure and its formal expression in the structure of the fono is thus much mitigated in practice.

During the meeting, matters of general interest or concern are discussed; regulations regarding the conduct of village affairs made; and decisions reached as to the punishment of offenders of village customs and regulations. The fono allows Samoan society to maintain law and order and social integration at the village level. The system is a sophisticated one. It provides channels for the attainment of personal satisfaction by the participants as well as the procedures for the maintenance of social and political stability. Structural rigidity and operational flexibility are effectively combined.

d. Alii (Chief) and Tulafale (Orator or Talking Chief). The traditional tribal structure of the matai system is divided by function

into alii and tulafale. In the affairs of their own families, the matai has the same responsibilities whether they are chiefs or orators; but in the fono and in public affairs the functions of the two groups are complimentary. The chief is the titular leader, the ultimate repository of authority. The orator is the executive agent, who performs for the chief a variety of duties which are contrary to propriety for the chief to perform for himself. The orator is the repository of geneological knowledge, history, and legend; he makes formal speeches on behalf of the chief with whom his particular title associates him or on behalf of the village; he organizes the ceremonial distribution of food; and he acts as master of ceremonies when a chief's title is being bestowed.

The relative influence of chiefs, and orators differs from place to place, depending upon geneological structure, upon time and circumstances, and upon personality. But the differences of function between the two groups is a constant factor. It should be understood that based upon this geneological order of classifications, there exists a host of sub-chiefs and sub-orators, that may number several thousand matais. This confusion of sub-chiefs and sub-orators has given rise to western translations such as high chief, high talking chief, chief and talking chief; but it is impossible to say that one chief is "higher" than another without a knowledge of the exact circumstances for which the determination is being made. The higher ranked alii or paramount high chiefs are classified by reason of the geneological order under the traditional Tusi O Fa'alupega (Book of Traditional and Formal Titles and Greetings). It is difficult to set forth a definitive description of a typical village hierarchy because each village varies immensely from the others. It is customary for new governmental programs i.e., water resources development, to recognize the traditional geneological titles of the villages or districts which participate in any water resources development project or program.

3. Election of a Matai. The right of electing a matai is in most cases vested in the family as a whole. This group includes both members by descent and persons connected with the family by marriage or adoption who are living as members of the family. In practice however, family members living in another village and not participating in the affairs of the family are not usually expected to take part in the discussions. In reaching their decision, the members of the family bear certain customary considerations in mind. The eldest surviving brother of the previous holder of the title is entitled to special consideration. Also to be taken seriously is a declaration by the previous holder before his death as to who should be his successor. But, fundamentally, the members are free to make their own choice. They are concerned with ensuring the amicable and effective control of the family's affairs and with the maintenance of its standing in the community. Special attention is paid to a candidate's past record of loyalty to the family and service to the previous matai. (See Title 1, Section 754 of the American Samoa code for matai qualifications.)

4. The Role of the Matai. The matai requires respect for his position, and in turn, accords respect to his juniors. He maintains order and discipline and adjudicates all intra-family disputes. He is trustee of the family lands, but he is not the owner. Although land cannot be sold without his consent and the approval of the Governor of American Samoa, he cannot dispose of family land without the consent of the family. Since his position is elective and not hereditary, he may be deposed if his administration displeases his family members. (See Title 1, Section 801 of the American Samoa code.)

5. Other Village Groups. The untitled men in a village belong to the aumaga. The aumaga gives service to the matais and they work on community projects, i.e., clearing land, planting crops and group fishing. The women who are members of local families by birth or adoption belong to the aualuma, and the wives of matai to the potopotoga o faletua ma tausi. The wives of untitled men form a less clearly defined group fafine laiti'iti, which assist, and sometimes meet with the faletua ma tausi group. Each group serves a village function which benefits the community. Duties range from weeding taro patches, to weaving mats and ie toga (fine mats), to inspecting village plantations.

The tama fafine group recognizes that special relationship between brothers and sisters. Brothers have an obligation to consider the interests of their sisters and their sisters' children. The sisters are held to have the power of cursing their brothers and their descendants if these obligations are neglected. This relationship and members of an aiga who are related to it through a female are recognized to exercise great influence, through the power of veto, on family decisions regarding the choice of a matai or the alienation or assignment of land.

6. The Role of Religious Groups. The religious institutions in American Samoa play an important but varied influence in the community. The major religions in American Samoa are Catholic, London Missionaries, Mormon and Methodist. A priest or minister is accorded a privileged position in the village community and is equal in status to a high chief. They may make village rules that affect the conduct of the villagers on Sunday, i.e., no one may swim in the sea on Sunday, and no one may cause a disturbance while the church is in service. The Church is also a landowner by reason of gifts and purchases of real property. The amount of influence of the church is highly dependent on the personality of the priest or minister.

## B. THE LAND TENURE SYSTEM

American Samoa presently has three characters of land holding: (1) communal land, (2) individually owned land, and (3) freehold land. Prior to the creation of freehold land grants in 1900, all lands in American Samoa were designated as communal lands. The majority of land is still under communal control. The character of some land has changed

from that of communal control to one of individual control, a new character of land created by the courts.

1. Communal or Native Held Lands. Communal lands are characterized as lands that are held under Samoan customs and subject to the Pule (authority) of the matai. Pule - a general Samoan word meaning control - does not imply ownership. It denotes the responsibility for allocating land, working it, and safeguarding it for future generations. The matai at the head of an aiga has been elected to at least one title and sometimes to several. Each title bestows pule over family lands.

Assignments of land by a matai for a house or a plantation for a family member is for that person's lifetime and cannot be revoked except for good cause; i.e., refusal to render services to the matai. The permission to use family lands given or assigned to family members continues as long as family members rendered a service to the matai and use it in accordance to Samoan customs. A matai may use produce, profits and rents from communal land in which he has an interest by virtue of his title in any manner he wishes, and members of a family may not claim an interest in property purchased with such profits.

The land holdings of each matai usually consist of several noncontinuous and odd-shaped plots and are well-known throughout the village. Where a patch has recently been cleared for a garden or plantation, its limits are readily recognized, but in older plantations or work plots this proves more difficult. Often the boundaries of each fragment are dependent on natural features such as a bend in a stream bed, a coconut stump, an indention in the ground, a large boulder or a tree; but these established limits are as definite to the Samoan pule holder as if they had been surveyed and fixed accurately on a map. In this respect, they are far less vague and present fewer problems than the boundaries of village land.

The Samoan sense of belonging to a community is most evident in the ownership of land. Land is the aiga's most precious possession, but paradoxically little care is given it, and well developed agricultural forms are not practiced. An interesting aspect of land character is the village malae which is equivalent to a village green or town plaza. The malae is located in the center of the village and is surrounded by the matai guest houses or fales which are organized based upon rank of the matai. The malae is used for village social activities and for sports events, and is maintained by all the families in the village. Each matai is given pule over a section of the malae according to rank but usually in front of his guest fale.

All alienation of communal land must be reviewed by the land Commission and approved by the Governor. All alienation of communal land is restricted to Samoans of at least one-half Samoan blood. All leases for communal

lands are limited to 30 years and must be posted for 30 days, approved by the Land Commission, and approved by the Governor of American Samoa prior to becoming effective. (Title 27 of the American Samoa Code.)

2. Individually Owned Land. When an individual has cleared virgin bush or occupied land without objection by others and there is no evidence that land is communally owned, the land can be claimed as individually owned. The character of individually owned land is an estate which subjects it to the restrictions on alienation of lands to Samoans of at least one-half Samoan blood. It can be described as an estate which is lesser in character to freehold or fee simple estates, which are alienable to any person or entity. It is a greater estate than communal land for the reason that it can be alienated to a Samoan with at least one-half Samoan blood, but does not have to be reviewed by the Land Commission and approved by the Governor of American Samoa.

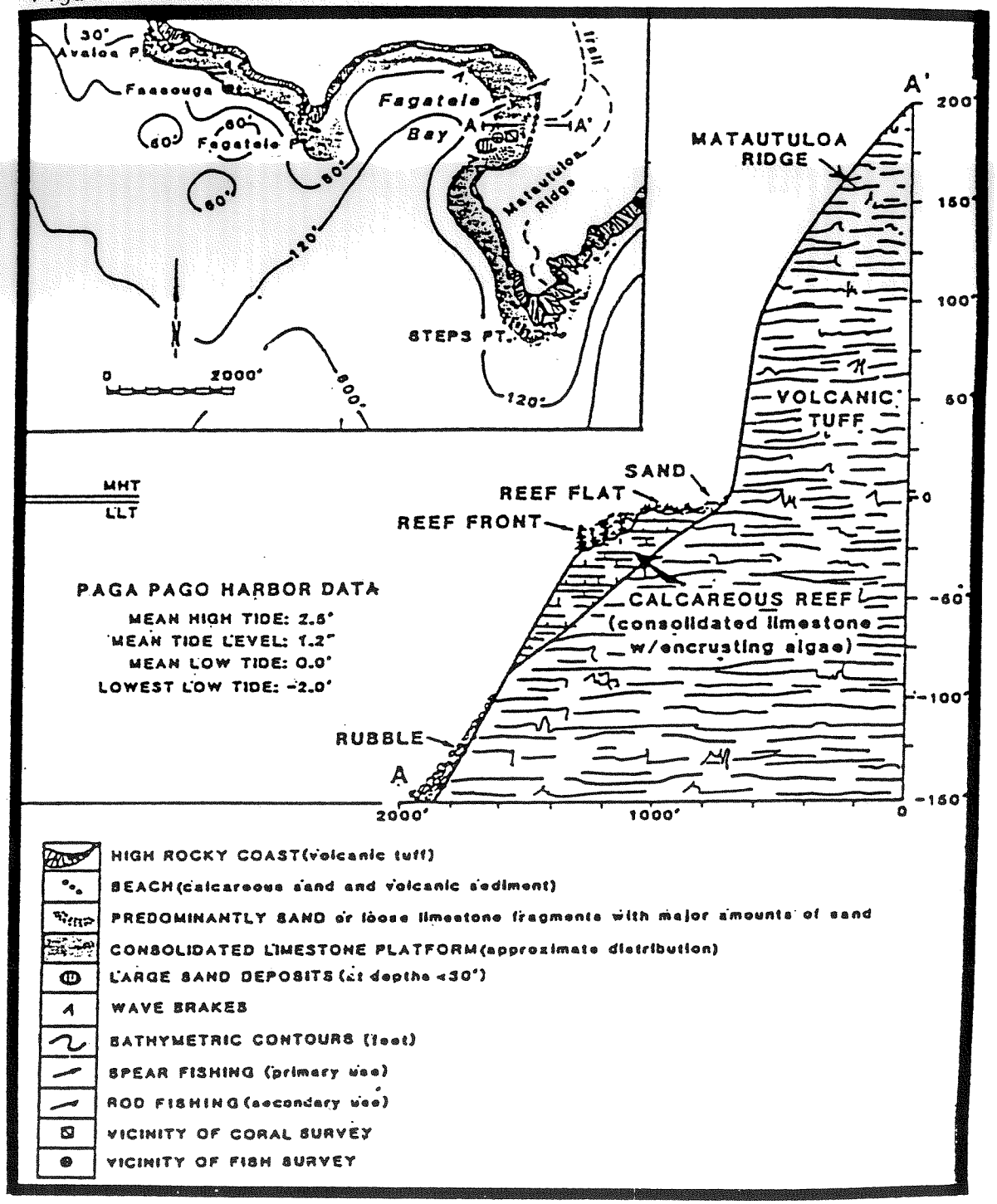
3. Freehold Land. Freehold land or fee simple land is a character of land that was created by the court grants of the Supreme Court of Western Samoa prior to 1900 under the German administration of Western Samoa. Freehold lands represent a very small portion of the total land area of American Samoa. The freehold lands are primarily held in probate estate of the original granter who often has several hundred heirs.

4. Government, Church, and School Held Lands. The nonalienation regulations do not prohibit the conveyance and transfer of native lands for governmental purposes to the United States Government or to the government of American Samoa and, upon approval of the Governor, to a recognized religious society or for school purposes.

5. Incorporation of Villages. The Revised Code of American Samoa does not have any provision for the incorporation of a village into a municipal entity and creating a municipal government for the purpose of governing the entity, issuance of bonds or declaration of public lands for; i.e., parks, schools, etc. It would appear that a municipal corporation which organizes the inhabitants of a prescribed area must be established under the authority of the legislature.

# APPENDIX D - GEOLOGY OF TUTUILA

Figure D-1. Cross-section and Geology around Fagatele Bay



# APPENDIX E - BIOLOGICAL CHARACTERISTICS

exists or on an appropriate remedial action, NOAA may issue a final determination in writing specifying the deficiency and the appropriate action together with the reasons therefore. No less than 60 days prior to issuing a final determination that calls for NOAA to take enforcement action, NOAA shall submit the proposed determination to the Governor of American Samoa. If the Governor finds that NOAA enforcement is unecessary to protect the values of the Sanctuary, the Governor shall inform NOAA of his objections within thirty (30) days after receipt of the proposed determinations and NOAA shall give such finding presumptive weight in making its final determination.

(d) All applicable regulatory programs will remain in effect, and all permits, licenses, and other authorizations issued pursuant thereto will be valid within the Sanctuary unless inconsistent with any regulation implementing Article 4. The Sanctuary regulations will set forth any certification procedures.

Section 2. Defense Activities. The regulation of those activities listed in Article 4 shall not prohibit any activity conducted by the Department of Defense that is essential for national defense or because of emergency. Such activities shall be conducted consistently with such regulations to the maximum extent practicable. All other activities of the Department of Defense are subject to Article 4.

## Article 6. Alterations to this Designation

This designation may be altered only in accordance with the same procedures by which it has been made, including public hearings, consultation with interested Federal and Territorial agencies and the Western Pacific Regional Fishery Management Council, and approval by the Governor of American Samoa and the President of the United States.

Article 7. Funding

In the event that a reduction in the funds available to administer the Sanctuary necessitates a reduction in the level of enforcement provided by the Territory, the resulting reduced level of enforcement shall not, by itself, constitute a basis for finding deficiency under Article 5, Section 1.

(End of Draft Document)

# APPENDIX B - AMERICAN SAMOA COASTAL MANAGEMENT PROGRAM

# EXECUTIVE ORDER NO. 3-1980

AN EXECUTIVE ORDER ESTABLISHING THE COASTAL MANAGEMENT PROGRAM FOR THE TERRITORY, DESIGNATING THE LEAD AGENCY FOR THE PROGRAM, REQUIRING THE COOPERATION OF ALL AFFECTED AGENCIES AND OFFICES OF THE TERRITORIAL GOVERNMENT, AND PROMULGATING THE OFFICIAL COASTAL MANAGEMENT POLICIES OF THE TERRITORY

WHEREAS, the shoreline and submerged lands adjacent to such shoreline are among the most valuable and fragile of the natural resources of the Territory of American Samoa; and

WHEREAS, there is throughout the territory great concern that the utilization, protection, restoration, and preservation of these shoreline areas; and

WHEREAS, the Federal Coastal Zone Management Act (PL 92-583), as amended, requires as a pre-condition to allocating federal monies to states and territories that a territorial agency be designated to receive and administer grants made by the federal government pursuant to Section 306 of the Act, as provided in 15 CFR 923.47; and

WHEREAS, effective implementation of the Coastal Management Program once undertaken requires the cooperation and coordination of all departments and agencies of the Territory, and its officers and employees; and

WHEREAS, the Office of Development Planning has prepared and submitted to the Federal Office of Coastal Zone Management its application for participation within the Program pursuant to the provisions of

NOW, THEREFORE, I, Peter Tali Coleman, Governor of the Territory of American Samoa, by virtue of the authority vested in me pursuant to Article IV, Section 6 of the Revised Constitution of American Samoa and 3 ASC Chapters 1 and 3, do hereby order and authorize the establishment of the American Samoa Coastal Management Program and further order that those objectives, policies, procedures and definitions set forth in Appendices "A", "B" and "C" attached hereto and incorporated by reference herein, be embodied in the American Samoa Coastal Management Program, to be implemented in a manner consistent with those objectives and policies by all departments, agencies, office and instrumentalities of the American Samoa Government within the scope of their respective authorities

1. The Office of Development Planning of the American Samoa Government, created by 29 ASC 903, is hereby selected as the "Designated Territorial Agency", as required by Sub-section 306(c)(5) of the Act, for the implementation of the Coastal Management Program and shall be the lead agency for all program implementation, as defined in 15 CFR 923.47, and it shall receive, administer, and account for all grants to the Territory under the Coastal Management Program.

2. The inner Pago Pago Harbor and Pala Lagoon are hereby declared to be Special Management Areas pursuant to Sub-section 305(b)(3) and 306(c)(9) of the Act and 15 CFR 932.21 and 923.22, respectively. Future Special Management Areas may be designated by the Governor following a nomination process, as described in the American Samoa Coastal Management Program, conducted pursuant to the Administrative Procedures Act, 3 ASC Chapter 17.

3. The Office of Development Planning is hereby vested with exclusive authority to designate uses subject to management and to review, comment upon, approve, or disapprove in a timely manner all applications for permits for uses, developments, or activities which in any way whatsoever impact the American Samoa Coastal Zone as established pursuant to this Order. Permit review procedures in Appendix "B" shall be followed in reviewing permits. For purposes hereof, the term "impact the American Samoa Coastal Zone" is defined as having direct and significant impacts on coastal waters as defined in Sub-section 304(1) of the Act. In exercising this authority the Office of Development Planning shall provide for effective public participation, including, as necessary, public hearings.

4. All departments, offices, agencies and instrumentalities of the American Samoa Government, and all officers and employees thereof, shall cooperate to the fullest extent possible in assisting the Office of Development Planning to carry out the responsibilities and duties of this Order and as are imposed by the Act and shall act consistently with territorial coastal zone management policies.

5. The Office of Development Planning is hereby authorized to propose to the Governor for this promulgation, pursuant to the provisions of the Administrative Procedure Act, such rules and regulations as it may deem necessary and proper for the effective implementation and administration of this Order and the policies hereunder established.

6. The Building Department within the Department of Public Works, established by 29 ASC 1001(1), is hereby designated as the agency responsible for the issuance of dredging, filling, and excavation permits affecting all waters of the Territory of American Samoa. The

Environmental Quality Commission, established by 13 ASC 4, shall provide all certifications pursuant to federal requirements under Section 401 of the Clean Water Act (P.L. 92-500).

All dredging, filling or excavation permit applications affecting waters of the Territory shall be reviewed by agencies with jurisdiction over such waters and waterbottoms and approvals obtained before a permit can be granted.

7. The entire Island of Tutuila, the Manu'a Island group, Aunu'u Island, Rose Island and Swains Island, Territory of American Samoa, and all coastal waters and submerged lands for a distance of three (3) nautical miles seaward in all directions therefrom are declared within the Coastal Zone Management Area and subject to the coastal zone management policies of the Territory of American Samoa and to this Order.

8. The Governor is hereby designated as the person to accept service of process on behalf of the American Samoa Government in all applications for judicial review under the Administrative Procedures Act concerning Coastal Management actions, except matters arising under the Zoning Act (29 ASC Chapter 13). In all such proceedings the Governor shall be represented by the Attorney General of American Samoa.

9. This executive order becomes effective 20 days after filing in accordance with the Administrative Procedure Act or upon receipt of federal government approval of the American Samoa Coastal Management Program, whichever is later.

DATED: At Utulei, Territory of American Samoa, this 29th day of May, 1980.

PETER TALI COLEMAN
Governor of American Samoa

## ASCMP OBJECTIVES AND POLICIES

### GOVERNMENT PROCESSES

1. Territorial Administration

Objective

Provide more effective and sensitive administration of laws, regulations and programs.

Policy

A coordinated, expeditious, and comprehensive permit and project review and approval processes shall be instituted.

The technical capability of agency personnel shall be increased.

The technical basis for making natural resource decisions shall be improved.

Sensitivity to Fa'a Samoa in the exercise of government administration shall be increased.

2. Village Development

Objective

Provide more effective and better coordinated territorial aid to villages.

Policy

Assistance to foster village development and improvement shall be coordinated through the village development plans in ways sensitive to village needs and preferences. Village development plans shall incorporate all ASCMP objectives and policies.

### DEVELOPMENT

3. Shoreline Development

Objective

Assure that lands adjacent to the sea are developed in a way least damaging to coastal resources and that reduces the risk of damage resulting from coastal hazards.

Policy

In the area measured 200 feet horizontally inland from the mean

high tide mark, uses, developments and activities shall be rigorously reviewed to determine whether they:

1) are susceptible to damage from shoreline erosion or other identified coastal hazards; or

2) diminish visual and/or physical access to the shoreline; or

3) may result in degradation of coastal resources.

Those uses, developments or activities which may result in any of the above impacts shall normally be denied. Exceptions may be allowed if the proposed use, development or activity:

1) serves a needed public purpose, including recreation; or

2) is water-dependent or water-related; and

3) is compatible with adjacent land uses or traditional Samoa uses; and

4) has no feasible environmentally preferable alternative sites.

In areas immediately adjacent to the landward and seaward side of the mean high tide line proposed uses, developments and activities shall also be evaluated using the U.S. Army Corps of Engineers permit application evaluation factors to the extent applicable.

4. Coastal Hazards

Objective

Reduce hazards to life and property from flooding, slides, and shoreline erosion.

Policy

Proposed development in areas prone to stream and ocean flooding, slides and shoreline erosion shall only be permitted if:

1) There is a public need; and

2) There are no feasible environmentally preferable alternative locations; and

3) The development is located and designed to minimize risks to public safety.

The following standards shall apply to location and design of development in areas prone to flooding, slides and erosion;

1) Uses that will not require protection through dikes, dams, and levees or other structures shall be preferred over uses that require such protection.

## Responses to Comments Received at Public Hearing

A public hearing was held on January 18, 1984 at the Convention Center in American Samoa. Listed below are a summary of testimony received and NOAA's response.

Office of Marine Resources (OMR) American Samoa Government (ASG), Dr. Richard C. Wass - 1/18/84

Comment: OMR feels that Boundary Option 3 (the inclusion of Fagalua Bay) was presented in too negative a fashion in the DEIS and should be reworded so that future consideration may be given to consider the possible addition of Fagatele Bay National Marine Sanctuary. It is also recommended that a tiered approach to fishing prohibitions be used, banning all taking activities within the area defined by Boundary Option 1 and allowing all fishing activities in the outer area defined by Boundary Option 2.

Response: Comment accepted. Changes are reflected in the FEIS.

American Samoa Tourism Office, Lewis Wolman - 1/18/84

Comment: The American Samoa Tourism Office supports the nomination of Fagatele Bay as a National Marine Sanctuary.

Response: Comment accepted.

American Samoa Commercial Fishing Association, Mel Makaiwi - 1/18/84

Comment: Expressed full support for the sanctuary concept, but felt that the tiered approach outlined by Dr. Wass was a more acceptable alternative.

Response: Comment accepted.

Department of Education, Sam Puletasi - 1/18/84

Comment: As a former commercial fisherman, he was concerned that the Preferred Boundary Option was too restrictive and may interfere with the traditional Samoan way of life. However, he would approach the tiered concept proposed by Dr. Wass.

Response: Comment accepted.

American Samoa Commercial Fishing Association, James McGuire - 1/18/84

Comment: He expressed skepticism over the enforcement of regulations, feeling that it is impractical. He also felt that the bay is more protected now than it would be with sanctuary designation and its increased use.

Response: As stated in the DEIS, the primary current activity in the bay is subsistence fishing. Other than some low level commercial fishing activity, there are presently no other significant ongoing activities. It is anticipated that after designation, the increased activities will be primarily those associated with interpretive programs. The use levels however, cannot be predicted until after designation. Visitor use trends will be carefully monitored during the first year of operation.

Comment: Concerning management of the proposed Sanctuary, the DEIS does not present a clear discussion regarding the site's future following the initial five-year period for implementation of the Management Plan. It is additionally unclear what happens to the Management Plan in the event of the disappearance of "available funds", (p.90). The financial reality of long-term management should be presented as precisely as possible to the reviewing public.

Response: Comment accepted and the document revised accordingly. The Federal Government has full financial responsibility for the life of the project. This plan covers the first five years of operation. After that period, the plan will be reviewed and revised accordingly.

Comment: Pages 7-8. Some further explanation of "the removal of sand for personal use" is desirable. What is the level of this activity?

Response: In other parts of Samoa and the Pacific, sand is removed for filling activities intended to increase the amount of available flat land. In Fagatele Bay, the level of this activity is presently insignificant.

Comment: Page 8. What types of "recent and future trends on human development pressures" exist in the proposal area?

Response: This refers to filling activities that increase the amount of available flat land for housing and other construction activities.

Comment: Page 11. In Table 1 ("Area and Maximum Altitude of the Islands of American Samoa"), what is the meaning of the abbreviation "n.d.", describing Rose Island?

Response: It means "not determined".

Comment: Page 13. The Samoan terms "a'a" and "Pahoehoe" lava flows should be defined.

Response: Both terms are accepted scientific terms derived from the Hawaiian language to describe two main lava types. A'a refers to rough textured lava resulting from slow-moving lava flows. Pahoehoe refers to lava possessing a ropey texture, usually associated with fast-moving lava flows.

OMR, ASG, Henry Sesepasara - 1/18/84

Comment: He supported Dr. Wass' comments and feels that enforcement would be more efficient through the use of buoys to mark the sanctuary's boundaries.

Response: Comment accepted.

American Samoa Department of Parks and Recreation, Ta'u Sualevi - 1/18/84

Comment: He fully supports the sanctuary proposal and feels that it would be useful for education and research, emphasizing the educational role of enforcment.

Response: Comment accepted.

Leone High School, Larry Madrigal - 1/18/84

Comment: He fully supports the sanctuary proposal and feels that specific, well-defined enforcement proposals be considered in writing the FEIS.

Response: Comment accepted.

Response: The American Samoa Government, will be bound, through cooperative agreements, to ensure enforcement of the regulations of this Federal sanctuary. Violations of regulations carry with it Federal penalities. Although neither NOAA nor the ASG can assure that all violators will be caught, all regulations will be enforced to the maximum practical extent. However, an equally important aspect to enforcement is education. Enforcement agents as well as interpreters will serve as educators to inform the public of the importance of regulations to the protection of this unique ecosystem. It is only through a combination of well-thought out regulations and a comprehensive interpretive program that protection can be assured.

National YWCA of American and Western Samoa, Elizabeth Malae - 1/18/84

Comment: The National YWCA of American and Western Samoa strongly supports sanctuary designation.

Response: Comment accepted.

Pro Fish, Larry Kirkland - 1/18/84

Comment: He agreed with previous testimony regarding enforcement problems. He also felt that designation was a foregone conclusion and that if one is going to be designated, he preferred Boundary Option 1.

Response: Comment accepted.

Pro Fish and Atamai Marine, Tom French - 1/18/84

Comment: He also agreed that enforcement would be a problem and increased access could potentially harm the bay. However, he supports the sanctuary concept.

Response: Comment accepted.

American Samoa Department of Education, Rick Davis - 1/18/84

Comment: He supports sanctuary designation and urged consideration of Fagalua Bay as a future inclusion into the sanctuary. He also urged development of overland access to the bay.

Response: Comment accepted; please see Generic Response E.

Van Camp Tuna Packers; Dept. of Commerce, Gordon Yamasaki - 1/18/84

Comment: He fully supports the sanctuary and feels that enforcement would play a major role in sanctuary operations. He also feels that enforcement is an important educational tool as well as assurance that the bay's resources are adequately protected.

Response: Comment accepted.

# APPENDIX A - DESIGNATION DOCUMENT

regulations. The applicant's proposal for a sanctuary permit is incorporated into the conditions of the permit by reference.

Permitted activites must be conducted with adequate safeguards for the environment. Insofar as possible, the environment shall be returned to the condition which existed before the activity occurred.

Any information obtained pursuant to the permitted activity shall be made available to the public. Submission of one or more reports to SPD on the permitted activity may be required.

## IX. Monitoring of Performance

Permitted activities will be monitored to ensure compliance with the conditions of the permit. SPD and on-site sanctuary personnel may periodically assess work in progress by visiting the study location and observing any activity permitted by the permit or by reviewing any required reports. The discovery of any potential irregularities in performance under the permit shall be promptly reported and appropriate action taken. Permitted activities will be evaluated and the findings will be used to evaluate future applications.

The Assistant Administrator may amend, suspend, or revoke a permit granted pursuant to these guidelines and sanctuary regulations, in whole or in part, temporarily or indefinitely, if in his/her view the permit holder(s) acted in violation of the terms of the permit or of applicable sanctuary regulations, or for any good cause shown. Any such action shall be communicated in writing to the permit holder, and shall set forth the reason for the action taken. The permit holder in relation to whom the action is taken may appeal the action as provided for in sanctuary regulations.

## X. Further Information

For further information on the National Marine Sanctuary Program, write or call the Sanctuary Programs Division or on-site sanctuary contacts listed below:

Sanctuary Programs Division
Office of Ocean and Coastal Resource Management
3300 Whitehaven Street, N.W.
Washington, D.C. 20235
(202) 634-4236

American Samoa Development Planning Office
Pago Pago, American Samoa 96799
633-5155
(If calling from overseas, dial 011-684 before number listed)

# PART XII: COMMENTS AND RESPONSES TO THE DEIS

Responses to Comments Received on the Proposed
Fagatele Bay National Marine Sanctuary
Draft Environmental Impact Statement
and Sanctuary Management Plan

This section summarizes the written and verbal comments received on the Draft Environmental Impact Statement and Sanctuary Management Plan (DEIS/MP) and provides OCRM's response to these comments. Generally, responses are made in one or more of the following ways:

(1) Expansion, clarification, or revision of the EIS/MP;

(2) Generic responses to comments raised by several reviewers, and/or

(3) Specific responses to individual comments made by each reviewer.

The following are some of the most common issues raised by reviewers:

Generic Comment A

NOAA's Preferred Alternative, which includes Fagatele Bay in its entirety, should be changed to allow commercial fishing in the outer portion of the bay. Over the years, this area has been used as a refuge from rough seas and a fishing ground while waiting for the heavy seas to pass.

Generic Response A

NOAA acknowledges the importance of fishing to the Samoan way of life and the multi-use aspects of the sanctuary. The outer portion of Fagatele Bay is much deeper than the inner areas and possesses many of the larger fish species. Comparing this area with the shallower portions, the reefs are deeper and, to a certain extent, less developed. Although the entire bay possesses certain valuable biological resources, the potential for benthic destruction in the outer bay area is not as great as the more accessible, shallower reef communities of the inner bay.

After careful evaluation of this potential sanctuary, NOAA has concluded that a tiered structure that would allow commercial fishing in the outer portions of the bay could benefit both the sanctuary and users of the sanctuary. All fishing activities within the shallower inner bay will be prohibited, but allowed in the outer bay. In this way, the productive, inner reef communities wll be preserved without risk of damage during its recovery process while allowing compatible activities in the outer bay.

Generic Comment B

The status quo, with various Federal and Territorial authorities, already provides enough protection for the resources described in the DEIS. A marine sanctuary would only add an unnecessary and expensive layer of Federal bureaucracy.

Generic Response B

The various Federal and Territorial agencies which exercise authority in the area of the proposed sanctuary provide a certain degree of protection to the resources of the area. Marine sanctuary designation will provide a management framework that does not presently exist.

The National Marine Sanctuary Program, unlike other regulatory programs which have jurisdiction in the area of the proposed sanctuary, offers a mechanism to focus on this particular geographically defined marine area and to provide comprehensive planning and management to protect the resources of the site over the long-term. Other statutes either focus on management of much smaller areas, single resources, or have resource protection only as an ancillary goal. NOAA belives that long-term protection of any area must involve more than just regulatory controls and marine sanctuary planning and management include provisions for research and monitoring of the condition of the resources to assure effective decisionmaking and maximum safe use and enjoyment. Other statutes do not provide in most cases the same geographically focused, comprehensive research and monitoring effort. In addition, the interpretive element of the program heightens public awareness of the value of the resources, the need for their conservation and wise use and thereby reduces the potential for harm; again, this aspect of the national marine sanctuary program is unavailable under the present system.

Although certain uses of the area do not now seriously threaten resource quality here, they could have significant effects if and when activity levels increase. The National Marine Sanctuary Program provides a management framework that will allow for timely responses to any future issues that might arise.

Generic Comment C

Designation of a marine sanctuary may interfere with the Samoan way of life. NOAA should consider the Samoan lifestyle when evaluating the proposed sanctuary.

Generic Response C

NOAA has continually maintained that "Fa'a Samoa", the Samoan way, will be of utmost consideration during the evaluation process. It is recognized that strong cultural ties are reflected in daily life in American Samoa. NOAA will do its utmost in assuring that the Samoan way of life, as it pertains to the sanctuary, is maintained and incorporated into sanctuary management.

During the evaluation process, NOAA has sought and received input from the American Samoan government as well as village chiefs and other local groups. NOAA feels that this input has been and will continue to be invaluable in assuring effective management of the sanctuary.

Generic Comment D

Designation of a marine sanctuary will mean increased access, thereby leading to further degradation of the bay's pristine ecosystem.

Generic Response D

Although marine sanctuary designation may increase access to the area, many safeguards will be employed to protect the bay's ecosystem. Besides regulations protecting the bay, other methods such as the use of anchor buoys will be instituted. However, one of the most overlooked methods of ecosystem protection, to be emphasized in the Sanctuary, is education. The Interpretive Program will focus on providing information to Samoans and all sanctuary visitors about the improtance of marine ecosystems, not just Fagatele Bay, to everyday life in American Samoa. A comprehensive education program combined with regulatory enforcement is the best combination to assure protection of Fagatele Bay's rich ecosystem.

Generic Comment E

Overland access to Fagatele Bay should be extensively explored to allow access by those unable to get to the sanctuary via waterborne routes.

Generic Response E

NOAA recognizes the importance of access to the proposed sanctuary. However, the steep cliffs around the bay currently make overland access dangerous and costly at the present time. Accordingly, NOAA believes that ocean access to the bay should first be emphasized to ensure efficient yet safe access to Fagatele Bay. However, NOAA recognizes the possible attraction of an overland access. If this is identified by the manager in consultation with the local community as a priority need during the first year of operation, the careful and skillful planning that is needed for this type of project could be undertaken during the first few years of sanctuary operation to ensure safe and proper development. For the present time, however, NOAA has concluded that ocean access development is of utmost consideration.

Department of Health and Human Services, Dr. Frank S. Lisella - 12/9/83

Comment: The Public Health Service has no comments to offer since they believe the proposed alternatives adequately addressed possible health effects.

Response: No response necessary.

U.S. Environmental Protection Agency, Region IX, Charles W. Murray, Jr. - 12/14/83

Comment: EPA has no objection to the proposed designation.

Response: No response necessary.

Whale Center, Mark Daugherty - 12/15/83

Comment: The Whale Center supports the sanctuary proposal. They also suggest that whale sitings be monitored as part of sanctuary personnel duties.

Response: Comment accepted and the document revised to reflect this suggestion.

Defenders of Wildlife, Sherrard C. Foster - 12/19/83

Comment: None of the boundary alternative descriptions are specific with regard to the extent of sanctuary jurisdiction relative to tide levels onshore.

Response: The boundaries given are inclusive at mean high high tide.

Comment: The discussion of boundary Alternative #3 at page 97 is vague concerning the adjoining Bays (Fagatele Bay) resources.

Response: NOAA recognizes the need for further physical, chemical, and biological resource information for Fagatele Bay. However, the discussion presented in the DEIS represents all of the available information. Other than a list of fish species, there are no publications or other readily available information regarding the resources of Fagatele Bay.

Comment: Although reproduction of enlarged, detailed maps of the proposal area may not be feasible, Defenders nonetheless notes its disappointment with the quality of the graphics presented in the DEIS.

Response: Presently, there are no detailed maps available that are specific to the area of the proposed sanctuary. However, NOAA feels that the maps presented in the DEIS are adequately presented so as to give the reader a clear picture of the proposed sanctuary area. Should the site be designated, a detailed chart of the area will be a management priority.

Proposals that are selected for support are forwarded to the NOAA Grants Office for negotiation with the organization to which the award is to be made. SPD recommends any special award conditions at that time. The award is signed by the NOAA Grants Officer and sent to the organization and principal investigator for acceptance. The award period begins on the day of acceptance by the organization unless otherwise stated in the award. A signed copy of the award is returned to NOAA.

APPENDIX H

# GUIDELINES FOR PREPARING AND SUBMITTING APPLICATIONS FOR NATIONAL MARINE SANCTUARY PERMITS

## I. Introduction

National marine sanctuaries are recognized as resource areas of national significance. Their distinctive characters clearly establish them as environmental benchmarks for scientific research and public education. The number of requests to conduct research and education projects in national marine sanctuaries increases every year. Guidelines managing research and eduction are thereby necessary to ensure that these activities are compatible with sanctuary goals and objectives and all other sanctuary activities.

The guidelines presented herein describe the sanctuary permitting process. Applicants seeking financial support for research should consult the Sanctuary Programs Division's (SPD) Guidelines for Preparing and Submitting Proposals for Research in National Marine Sanctuaries.

Permits may be issued by the Assistant Administrator for National Ocean Services or his/her designee under special circumstances for activities otherwise prohibited by sanctuary regulations when related to: (1) research to enhance scientific understanding of the sanctuary environment or to improve management decisionmaking; (2) education to further public awareness, understanding, and wise use of the sanctuary environment; or (3) salvage and recovery operations.

## II. Application Contents

A. Cover Sheet. The cover sheet should identify: (1) name of the national marine sanctuary in which the proposed activity would take place; (2) title of project; (3) name, address, telephone number, and affiliation of applicant: (4) name, affiliation, and relationship of colleagues to be covered by the permit; (5) project duration; (6) funding source; (7) key words; and (8) signature of applicant.

B. Project Summary. A 250-word project summary should include a brief statement of research objectives, scientific methods to be used, and significance of the proposed work to a particular sanctuary or to the national marine sanctuary system. The summary should be suitable for use in the public press.

C. Technical Information. This includes brief, but clear, concise and complete statements of the following:

1. Background. Provide background information, including state of knowledge and significant previous work in the area of interest.

2. Objectives. State the objectives of the study.

3. Project Significance. Discuss how the proposed effort would enhance or contribute to improving the state of knowledge. Explain why the proposed effort should be performed in the sanctuary and the potential benefits of the proposed effort to the sanctuary.

4. Methods. Describe the tasks required to accomplish the project's objectives. Provide adequate description of field and laboratory methods and procedures. Describe the rationale for selecting the proposed methods over any alternative methods. If collecting is required, indicate the type, quantity and frequency, how the specimens will be handled, and if reference collections are made, where specimens will be deposited upon completion of the project. Indicate what organisms might be collected incidental to those specifically sought and, if known, identify specialists who might be interested in incidental groups.

Consult with on-site sanctuary personnel beforing selecting study sites. Provide a map to field study location(s) and indicate habitat areas of particular concern. Indicate where the laboratory analyses will be conducted, if applicable.

5. Environmental Consequences. Discuss the environmental consequences of conducting an otherwise prohibited activity. Cite references.

6. Personnel. Identify the research team and specific task assignments of team members. Provide qualifications and evidence of ability to perform tasks. Only those persons listed on the permit are allowed to participate in permitted activities.

7. Treatment of Results. Describe the nature and extent of anticipated results. Indicate how the results will be treated (e.g., published in a reference journal, incorporated into academic curriculum, used in management decisionmaking, published in the public press).

8. References. Cite only those used in the text of the proposal.

D. Supporting Information

1. Financial Support. Provide contract number, performance period, and name of sponsoring agency.

2. Coordination with Research in Progress or Proposed. SPD encourages coordination and cost-sharing with other investigators to enhance scientific capabilities and avoid unnecessary duplication of effort. Applicants should include a description of these efforts, where applicable.

## IV. Requests for Sanctuary Support Services

SPD has limited on-site sanctuary personnel, facilities and equipment that may be used on loan or lease to support research under special circumstances. This includes use of Carysfort Lighthouse in Key Largo National Marine Sanctuary. Requests for support should accompany the permit application and include the following information: (1) type of support requested; (2) justification; (3) dates and length of use; and (4) alternative plans if support is not available.

## V. Requests for Amendments to Active Permits

Requests for extension of a permit period, change in study design or other form of amendment to active permits should conform to these guidelines. All pertinent information needed to make an objective evaluation of the

amendment should be included in the request. The applicant may reference the original application in the request for an amendment.

## VI. Submission of Requests for Permits

Requests for permits should be submitted in five (5) duplicate copies at least three (3) months in advance of the requested effective date, preferably by the beginning of the calendar year, to allow sufficient time for evaluation and processing. In proven emergency situations, exceptions to this requirement may be considered.

Requests for permits should be addressed as follows:

Assistant Administrator for National Ocean Service
ATT: Dr. Nancy Foster, Chief
Sanctuary Programs Division
Office of Ocean and Coastal Resource Management
3300 Whitehaven Street, N.W.
Washington, D.C. 20235

(202)634-4236

## VII. Evaluation of Permit Requests

Permit applications are checked for completeness and adherence to these guidelines. Complete applications are assigned tracking numbers. Incomplete applications are returned to applicant for clarification. Complete applications reviewed by SPD program officials, on-site sanctuary personnel and, where necessary, outside experts. Applications are judged on the basis of (1) relevance or importance to sanctuary; (2) scientific or educational merits; (3) appropriateness and environmental consequences of technical approach; and (4) whether the proposed effort should be conducted outside of the sanctuary.

## VIII. Conditions of Permits

Based on the findings of the evaluation, SPD recommends an appropriate action to the Assistant Administrator. If denied, applicants are notified of the reason for denial. If approved, the Assistant Administrator or his/her designee signs and issues the permit. An original and two copies are sent to the applicant for signature. Applicants must send signed copies to SPD and on-site sanctuary personnel prior to conducting permitted activities in the sanctuary. Permits must be carried aboard research vessels and made available upon request for inspection by sanctuary personnel or law enforcement officials. A NOAA/SPD research flag will be issued to the permit holder by on-site sanctuary personnel. The flag must be displayed by the permit holder while conducting the permitted activity and returned to on-site personnel upon completion of the permitted activity. This requirement not only assures that sanctuary personnel are aware of permitted activities, but also alerts other sanctuary users that research is in progress.

Only persons named on the permit may participate in permitted activities. Permits and NOAA/SPD flags are non-transferrable. Permit holders must abide by all provisions set forth in the permit as well as applicable sanctuary

4. Methods. Describe the tasks required to accomplish the project's objectives. Provide adequate description of field and laboratory methods and procedures. Provide a map to study location(s). Indicate habitat areas of particular concern. Indicate where laboratory analyses will be conducted, if applicable. Describe the rationale for selecting the proposed methods and study locations over any alternatives. Identify any environmental consequences. List and describe facilities and equipment to be used. Collaborative arrangements and cost-sharing should be documented in the proposal.

5. Analysis of Results. Discuss how the results will be analyzed. Reference relevant statistical analyses.

6. Deliverables. Discuss anticipated final products -- see IV. Report Preparation. Provide sample graphics or illustrations and layout design. If color photographs or graphics are to be used, provide justification for use and estimate total number. Indicate how results will be treated -- published in reference journal, published in the public press, incorporated into academic curriculum, submitted to SPD's Technical Report Series, etc. (Note the SPD prints and publishes a limited number of outstanding reports in its Technical Report Series).

F. Personnel. Describe the research team and the specific task assignments of team members. Indicate the percentage of time, based on the offeror's regular work week, that personnel are expected to devote to the proposed work. Provide resumes listing qualifications and details relating professional and technical personnel. In an appendix, list each investigator's publications during the past 5 years. Describe and explain any portion of work expected to be subcontracted and identify probable sources.

Submit evidence of ability to perform. Such evidence shall be in reference to similar efforts performed.

G. References. Cite only those used in the text of the proposal.

H. Budget. The applicant may request funds under any of the categories listed below as long as the item is considered necessary to perform the research. The applicant should provide justification for major items requested.

1. Salaries and Wages. Salaries and wages of the principal investigator and other members of the project team constitute direct costs in proportion to the effort devoted to the project. The number of fulltime person months or days and the rate of pay (hourly, monthly or annual) should be indicated. Salaries requested must be consistent with the institution's regular practices. The submitting organization may request that salary data remain proprietary information.

2. Fringe Benefits. Fringe benefits (i.e., social security, insurance, retirement) may be treated as direct costs so long as this is consistent with the institution's regular practices.

3. Equipment. Itemize equipment to be purchased, leased or rented by model number and manufacturer, where known. Describe purpose of use. SPD defines equipment as an item of property that has an acquisition

cost of $300 or more and an expected service life of 2 years or more. Equipment becomes the property of SPD at the termination of the contract. Where possible and economically advantageous, equipment should be rented or leased for the duration of the project.

4. Travel. Describe the type and extent of travel and relation to the proposed research. Travel expense should not exceed 40 percent of total direct costs. Funds may be requested for field work and subsistence and for consultant's travel.

5. Other Direct Costs. The budget should itemize other anticipated costs under the following categories:

a. Materials and Supplies. The budget should indicate in general terms the types of expendable materials and supplies required with their estimated costs.

b. Research Vessel or Aircraft Rental. Include unit cost and duration of use.

c. Laboratory Space Rental. Funds may be requested for use of laboratory space at research establishments away from the grantee institution while conducting studies specifically related to the proposed effort.

d. Reference Books and Periodicals. Funds may be requested for reference books and periodicals only if they are specifically required for the research project.

e. Publication and Reproduction Costs. This includes costs of preparing written text and illustrations and publishing results.

f. Consultant Services. Consultant services should be justified and information furnished on consultant's expertise, primary organizational affiliation, daily compensation rate and number of days of expected service. (Travel should be listed under travel in the budget).

g. Computer Services. The cost of computer services, including data analyses and storage, word processing for report preparation and computer-based retrieval of scientific and technical information, may be requested and must be justified.

h. Subcontracts. Subcontracts must be be disclosed in the proposal for approval by SPD.

6. Indirect Costs. Appropriate or established indirect cost rate; e.g., fees.

I. Other Sources of Financial Support. List all current or pending research to which the principal investigator or other key personnel have committed their time during the period of the proposed work, regardless of the source of support. Indicate the level of effort or percentage of time devoted to these projects.

If the proposal submitted to SPD is being submitted to other possible sponsors, list them and describe the extent of support sought. Disclosure of this information will not jeoparadize chances for SPD funding.

J. Application for Sanctuary Permit. Removal or manipulation of sanctuary resources or activities prohibited by sanctuary regulations requires a sanctuary permit. Proposals should discuss the environmental consequence of conducting an otherwise prohibited activity and indicate whether the activity could be conducted outside the sanctuary and accomplish the project's objectives. If collecting is required, indicate the type and quantity and where specimens will be deposited. Indicate what organisms might be collected incidentally to those specifically sought and identify specialists who might be interested in incidental groups.

K. Requests for Sanctuary Support Services. SPD has limited on-site sanctuary personnel, facilities and equipment which may be used on loan or lease to support research under special circumstances. Requests should include the following information: (1) type of support requested; (2) justification; (3) dates and duration of use; and (4) alternative plans if support is not available.

L. Coordination with Other Research In Progress or Proposed. SPD encourages coordination, collaboration and cost-sharing with other investigators to enhance scientific capabilities and avoid unnecessary duplication of effort. Proposals should include a description of these efforts.

V. Submission of Proposals

Dates for submission of solicited proposals are announced in the Commerce Business Daily. Unsolicited research proposals may be submitted at any time but in order to be funded in a particular fiscal year, proposals should be received no later than December 15 of that year (ie., by December 15, 1983 for FY 84 funds). Applicants should allow at least ninety (90) calendar days for review.

Five (5) copies of the proposal should be submitted to:

Dr. Nancy Foster
Chief
Sanctuary Programs Division
Office of Ocean and Coastal Resources Management
National Oceanic and Atmospheric Administration
3300 Whitehaven Street, N.W.
Washington, D.C. 20235
(202)634-4236

# APPENDIX G

# GUIDELINES FOR PROCESSING AND EVALUATING RESEARCH PROPOSALS

APPENDIX G

# GUIDELINES FOR PROCESSING AND EVALUATING RESEARCH PROPOSALS

## I. Receipt and Acknowledgement of Proposals

Receipt of research proposals is acknowledged in writing by the Sanctuary Program Division. Proposals are checked for completeness and adherence to the stated guidelines. Complete proposals are recorded and assigned tracking numbers, while incomplete proposals are returned to sender for clarification. These guidelines, presented herein, as well as those required under the NOAA and DOC procurement procedures, are followed in the proposal review process.

## II. Selecting Review Boards for Evaluating Proposals

SPD has assembled a registry of recognized scientists and resource managers who have indicated a willingness or who have been recommended by their peers to serve on proposal review boards in their particular fields. After a proposal has been screened by SPD, a review board of 3 to 10 persons is selected. The board can include inhouse staff, on-site sanctuary personnel, and persons on the registry. Review board members must have a demonstrated understanding of the particular sanctuary and the problem represented by the proposal and a lack of bias to enable performance in a meaningful evaluation.

## III. Criteria for Evaluating Proposals

The criteria presented below are applied to all proposals in a balanced and judicious manner in order to select the most meritorious proposals for support by SPD.

A. Relevance or Importance of the Research to Sanctuary Management -- this criterion is used to assess the relevance or importance of the research to site-specific, regional, or national marine sanctuary management issues. Considered under this criterion is the likelihood that the research will enhance sanctuary management decisionmaking and the proposal's demonstrated grasp of the problem (i.e., does the proposal demonstrate a clear understanding of the problem, the total research requirement, the mission of the national marine sanctuary program, the goals and objectives of the site-specific sanctuary, and other integral factors which are germane to achieving the objectives of the proposal?). In addition, factors such as the project's uniqueness, innovation, or meritorious approach are considered here.

B. Scientific or Educational Merits of the Research -- this criterion is used to assess the likelihood that the research will contribute to improving scientific understanding of the sanctuary environment or contribute to promoting public awareness, understanding and wise use of the sanctuary environment.

C. Qualifications, Capabilities, and Experience of the Principal Investigator and Key Personnel -- this criterion is used to evaluate such factors as experience related to the procedures, methodologies

and techniques to be employed; education and experience in the general technical field; and publishing record;

D. Technical Approach -- the following factors are to be considered: the degree to which the offeror states clear objectives, assumptions and possible solutions; the soundness of approach--the degree to which the proposed methods, techniques and procedures are suited to the program objectives and the affected environment; the degree to which the proposal demonstrates an understanding of those methods, techniques, and procedures; the adequacy in satisfying project requirements and tasks; the probability of success; the degree to which the proposed program scheduling is realistic and comprehensive; the degree to which the proposal demonstrates an understanding of past and on-going research programs; the degree to which the proposal will utilize other resources; the degree to which the proposed technical program plans to integrate, interpret, and synthesize specialized and interdisciplinary data; and availability of necessary support (i.e., facilities, equipment, and degree of support available to the proposed effort at no additional cost to the government; program management support; accountability).

E. Other Factors Evaluated -In addition to the criteria listed above, proposals are evaluated to determine:

(1) environmental consequences of conducting or not conducting the research (2) whether or not the research should be conducted in the national marine sanctuary or outside of its boundary; (3) if the research is germane to the interests of the National Marine Sanctuary Program; (4) whether or not the material contained in the proposal is already available to the Government from other sources; and (5) if any other local, private, state, or Federal program would have an interest in the proposed project.

During the evaluation period, proposals and any other relevant materials should be closely safeguarded. Proposals can only be duplicated by SPD. If additional copies are required for evaluation, they must be obtained from SPD.

## IV. Proposal Acceptance and Declination

Review board members will provide final recommendations to NOAA/SPD within 30 working days after receipt of proposals for review. All copies of proposals will be returned to SPD.

SPD is responsible for making the final award decision. Declined proposals are returned. Applicants may request and receive the reasons for the action.

APPENDIX F

# DRAFT GUIDELINES FOR PREPARING AND SUBMITTING PROPOSALS FOR RESEARCH IN NATIONAL MARINE SANCTUARIES

## I. Sanctuary-Sponsored Research

The Sanctuary Programs Division (SPD) of the Office of Ocean and Coastal Resource Management in the National Oceanic and Atmospheric Administration (NOAA) provides support for research which addresses management issues in national marine sanctuaries. Research priorities are identified in sanctuary management plans.

## II. Types of Proposals

The SPD provides financial support for research through grants, contracts, and cooperative agreements. Cost-sharing and coordination of projects with other government agencies, universities and private institutions is encouraged.

The SPD considers proposals from universities and colleges; nonacademic research institutions (e.g., research laboratories, independent museums, professional societies); private organizations; local, state or other Federal government agencies; and unaffiliated qualified individuals.

Proposals for research in national marine sanctuaries fall under one of several categories as defined below:

A. Competitive Proposals. Any procurement for which bids, quotations, or proposals are solicited or requested from several qualified sources for competitive evaluation. Requests for proposals (RFP) and scope of work are published in the Commerce Business Daily.

B. Noncompetitive Proposals. Any procurement for which bids, quotations or proposals are solicited or requested from only one source or for which only one bid, proposal or quotation is received. Noncompetitive proposals are considered when: (1) no other source has the capabilility and/or experience; (2) efforts to find other firms are unsuccessful; (3) only the one proposed contractor can meet the required delivery schedule; or (4) it would be less than economic if the requirement was procured by another source.

C. Unsolicited Proposals. Any formal written offer to perform a proposed task or effort that is initiated and submitted by a qualified prospective contractor without a solicitation by SPD. SPD encourages the submission of ideas, concepts or suggestions that may help to improve or enhance its mission or sanctuary management capabilities through unique or innovative methods or approaches.

## III. General Policies

Proposals for research in national marine sanctuaries are evaluated in accordance with stated evaluation criteria (see Guidelines for Evaluating Proposals). All proposals are reviewed by SPD officials and experts knowledgable on the subject matter.

SPD does not normally support open-ended projects, projects with vague goals, projects with untested and unproven methods, or projects that will have adverse impacts on the sanctuary environment. New methods should be field tested and evaluated in small projects before use in major projects supported by SPD in order to ensure a high probability of successful project completion.

SPD will consider providing support for research conducted outside of the sanctuary if the proposed effort is of importance to sanctuary management. When proposals include activities prohibited by sanctuary regulations, it may be determined that all or part of the research should be conducted outside the sanctuary boundary. Sanctuary regulations and Guidelines for applying for Sanctuary Research/Education Permits should be consulted to determine the appropriateness of the research approach considered before a proposal is submitted to SPD. Under special circumstances, activities otherwise prohibited by sanctuary regulations may be permitted under NOAA permit or otherwise conditioned to reduce the threat of harm to the environment.

When research supported by other sources is to be conducted in the sanctuary, SPD and on-site sanctuary personnel should be notified in advance by the principal investigator to help assure that responsible program personnel are aware of all research activities in a particular sanctuary.

Provisions for emergency response to crisis situations that may affect the sanctuary are being considered. During the past, several potential emergency situations have occurred, including oil spills, massive fish kills, apparent epidemics of disease, and boat groundings, and no contingency plan was in place to respond to the crisis or assess its impact in an organized and timely fashion.

## IV. Proposal Content

A. Cover Sheet. The cover sheet should identify the following, where applicable:

1. Announcement or solicitation number and closing date (if any) or identify as unsolicited

2. Name of national marine sanctuary where proposed project is to be conducted

3. Title of proposed project

4. Name and address of organization to which the award would be made

5. Type of organization

6. Name, address and phone number of principal investigator and additional key project representatives

7. Requested amount

8. Proposed start date

9. Proposed Project duration

10. Other funding sources (actual or potential)

11. Previous award numbers for renewal or continued support

The title of the proposed research project should be brief, informative and intelligible to the general public.

Specification of a proposed starting date does not guarantee award by that date. Work on the project should not begin before the effective date designated on the official notification of the award.

A proposal must be signed by the organizational official authorized to contractually obligate the submitting organization. The principal investigator is also signatory.

B. Table of Contents.

C. Lists of Figures and Tables.

D. Project Summary. A 250-word project summary should include a statement of research objectives, scientific methods to be used and the significance of the project to a particular sanctuary or to the national marine sanctuary system. The summary should be suitable for use in the public press.

E. Project Description. The main body of the proposal should be concise, but detailed. It should include:

1. Description of Current State of Knowledge. Discuss the problem in light of significant previous work in the area.

2. Project Objectives. State the objectives of the study.

3. Project Significance. Discuss how the proposed effort will enhance or contribute to improving the state of knowledge. Discuss any relevant management issues and how the proposed effort will contribute to sanctuary management decisionmaking, future sanctuary research, and/or other works in progress.

*intermedia*
*latistella*
*longicyathus*
*massawensis*
*millepora*

Genus *Gardineroseris*
Species *ponderosa*

Genus *Leptoseris*
*gardineri*
*scabra*

Genus *Pachyseris*
*carinata*
*levicollis*
*speciosa*

*Genus *Coscinaraea*
*columna*

Genus *Fungia*
*concinna*
*echinata*
*fungites*
*granulosa*
*patelliformis*
*paumotensis*
*repanda*
*scutaria*

Genus *Herpolitha*
*crassa*
*limax*

Genus *Polyphyllia*
*novae-hiberniae*

Genus *Halomitra*
*pileus*

Genus *Goniopora*
*parvistella*
cf. *somaliensis*

Genus *Porites*
*andrewsi*
*arenosa*
*latistella*
*lichen*
*lobata*
*lutea*
var. *haddoni*
*matthaii*
*murrayensis*

*gigantea*
*maldivensis*
*varians*

Genus *Alveopora*
*allingi*
*verriliana*
sp. 1

*Genus *Favia*
*favus*
*laxa*
*pallida*
**rotumana*
*speciosa*
*stelligera*

*Genus *Favites*
*abdita*
*chinensis*
*halicora*
*russelli*

*Genus *Goniastrea* sp.
*edwardsi*
*favulus*
*palauensis*
*pectinata*
*retiformis*

*Genus *Platygyra* sp.
*lamellina*
*rustica*

*Genus *Leptoria*
*phrygia*

Genus *Oulophyllia*
*crispa*

*Genus *Hydnophora*
*exesa*
**microconos*

Genus *Montastrea*
*curta*

Genus *Plesiastrea*
*versipora*

Genus *Diploastrea*
*heliopora*

*pukoensis*
*queenslandi septima*

Subgenus *Synaraea*
*horizontalata*
*undulata*

*Genus *Echinopora*
Species *lamellosa*

Genus *Galaxea*
*clavus*
*fascicularis*

Genus *Acrhelia*
*horrescens*

Genus *Acanthastrea*
*echinata*

*Genus *Lobophyllia*
*costata*

*Genus *Symphyllia*
*nobilis*

*Genus *Merulina*
*ampliata*

Genus *Echinophyllia*
*aspera*

Genus *Leptastrea*
*purpurea*

Genus *Cyphastrea*
*microphthalma*

Genus *Oxypora*
*lacera*

Genus *Eyphyllia*
*glabrescens*

* Genus *Plerogyra*
**simplex*

Genus *Tubastrea*
*coccinea*

Genus *Turbinaria*
*frondens*
*peltata*

Genus *Heliopora*
*coerulea*

*Genus *Millepora* sp.
*platyphylla*
*tenera*

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* Recorded in Fagatele Bay prior to starfish devastation in December 1978; Paul Bartram 1982, personal communication.

Source: List compiled by Dr. A. Lamberts and printed in AF & AECOS 1980.

# APPENDIX F

## DRAFT GUIDELINES FOR PREPARING AND SUBMITTING PROPOSALS FOR RESEARCH IN NATIONAL MARINE SANCTUARIES

APPENDIX E (continued)

| COMMON NAME | SCIENTIFIC NAME | |
|---|---|---|
| Angelfishes | Centropyge bispinosus | 2 |
| | C. flavissimus | + |
| | C. loriculis | + |
| | Pomacanthus imperator | + |
| | Pygoplites diacanthus | 1 |
| Butterflyfishes | Chaetodon ephippium | + |
| | C. ulietensis | + |
| | C. ornatissimus | 1 |
| | C. pelewensis | 1 |
| | C. reticulatus | 1 |
| | C. trifasciatus | + |
| | Chaetodon trifascialus | 5 |
| | Forcipiger flavissimus | 1 |
| | F. longirostris | 1 |
| | Hermitaurichthys polylepis | + |
| | Heniochus monoceros | + |
| | H. chrysostomus | + |
| | H. varius | + |
| Moorish Idol | Zanclus cornutus | 1 |
| Surgeonfishes | Acanthurus bleekeri | + |
| | A. glaucopareius | 3 |
| | A. lineatus | + |
| | A. nigrofuscus | 2 |
| | A. Olivaceus | + |
| | Ctenochaetus striatus | 10 |
| | C. strigosus | 6 |
| | Naso literatus | 2 |
| | Zebrasoma scopas | 2 |
| Rabbitfish | Siganus punctatus | + |
| | S. argenteus | + |
| Damselfishes | Abudefduf vaigiensis | + |
| | Chromis acares | 72 |
| | C. atripectoralis | 8 |
| | C. iomelas | 19 |

available funds" is cited. Although this is a helpful and definite indication of projected expenditures, it would be useful to state initially where the financial responsibilities for the Sanctuary lie. Defenders suggests an introductory discussion incorporating this basic information be added to Part I, "Executive Summary."

Response: Full financial responsibility for sanctuary management rests with the Federal Government; this is now stated in the text.

Comments: Pages 91-93. There are no costs cited in connection with management alternatives 3, 5, or 6. Should this information be included as part of the public decisionmaking process?

Response: Costs for these alternatives would be merely speculative and should not be included as part of the public decisionmaking process unless firm, reliable estimates could be made.

Comment: Page 93. There is no information given on the status (if any) of "Special Area" designation for Fagatele Bay, under the American Samoa Coastal Management Program. Has this concept been discussed with the American Samoan government?

Response: The American Samoa Government has no plans to declare Fagatele Bay as a "Special Area."

Comment: Page 102. There appears to be one or more words missing from the following: "Other areas related to sanctuary management which may be explored include: (1) ...; (2) innovative of enhancing coral growth and productivity; ...." (Emphasis added.)

Response: The correction has been incorporated into the text of the FEIS.

Center for Environmental Education, Michael Weber - 1/12/84

Comment: Boundaries: While we agree that your agency's preferred alternative would meet the criteria of the National Marine Sanctuary Program's regulations, we believe considerable benefits will be gained if boundary alternative 3 is adopted instead. Briefly, inclusion of Fagalua Bay will provide a unique opportunity to study two ecosystems subject to very different physical influences in a very small area. In addition, inclusion of Fagalua Bay would provide a focus for interpretive activities which could increase visitors' appreciation not only for a typical ecosystem within the region, but for the the differences that can be found within the region.

The discussion of this alternative in the DEIS does not lead us to believe that significant additional costs would be incurred if this alternative were to be adopted.

Finally, we suggest that the boundary of alternative 3 be expanded to include waters out to the 20 fathom isobath around Steps Point. This expansion will focus research attention upon this boundary area. We believe that the study of this "edge" might well yield significant information about the role of such areas not only in the dynamics of Fagatele and Fagalua Bays but also in other marine areas.

APPENDIX E (continued)

| COMMON NAME | SCIENTIFIC NAME | |
|---|---|---|
| Damselfishes | C. xanthura | 13 |
| | C. sp. "A" | 4 |
| | Dascyllus reticulatus | 3 |
| | D. trimaculatus | 1 |
| | Plectroglyphidodon dickii | 115 |
| | P. johnstonianus | 18 |
| | P. lacrymatus | 4 |
| | Pomacentrus brachialis | 12 |
| | P. vaiuli | 5 |
| Wrasses | Anampses caeruleopunctatus | + |
| | A. meleagrides | + |
| | Bodianus axillaris | + |
| | Cheilinus diagrammus | + |
| | C. oxycephalus | 1 |
| | C. rhodochrous | + |
| | C. trilobatus | + |
| | Coris aygula | + |
| | Epibulus insidator | 1 |
| | Gomphosus varius | 8 |
| | Halichoreres hortulanus | + |
| | H. biocellatus | + |
| | Hemigymnus fasciatus | + |
| | Labrichthys unilineatus | 3 |
| | Labroides bicolor | + |
| | L. dimidiatus | 2 |
| | L. rubrolabiatus | + |
| | Labropsis sp. "A" | 2 |
| | Macropharyngodon meleagris | + |
| | Pseudocheilinus evanidus | + |
| | Pseudodax moluccanus | + |
| | Anampses twistii | + |
| | Stethojulis bandanensis | + |
| | Thalassoma hardwickei | + |
| | T. lutescens | 3 |
| Parrotfishes | Cetoscarus bicolor | + |

APPENDIX E (continued)

| COMMON NAME | SCIENTIFIC NAME | |
|---|---|---|
| Parrotfishes | Scarus rubroviolaceus | + |
| | S. japanensis | + |
| | S. tricolor | + |
| | S. spinus | + |
| | S. psitticus | + |
| | S. gibbus | + |
| | S. niger | 2 |
| | S. oviceps | + |
| | S. frenatus | + |
| | S. sordidus | 4 |
| Gobies | Ptereleotris evides | + |
| Blennies | Cirripectes stigmaticus | 1 |
| | Exallias brEvis | 2 |
| Triggerfish | Balistapus undulatus | + |
| | Melichthys vidua | 2 |
| | Sufflamen bursa | + |
| Filefish | Amanses scopas | 4 |
| | Cantherines dumerili | + |
| | C. pardalis | + |
| | Oxymonacanthus longirostris | + |
| Trunkfish | Ostracion meleagris | 1 |
| Pufferfish | Canthigaster solandri | 1 |
| Filefish | Alutera scripta | + |
| Snapper | Caesio caerulaureus | + |

TOTALS 114 species 370 individuals

48 species observed on transect

66 species observed within 20 m of the transect during subsequent 20 minute search

## FAGATELE BAY REEF FLAT

Survey Date - February 15, 1978

The 100 m transect extended from the seaward edge of the reef flat to within about 30 m of the beach near the middle of the bay.

Average depth was less than one meter.

The following species were identified and counted on the transect or observed during a subsequent 20 minute search (designated by "+").

| COMMON NAME | SCIENTIFIC NAME | |
|---|---|---|
| Grouper | Epinephelus merra | + |
| Emperor | Lethrinus harak | + |
| Goatfish | Parupeneus bifasciatus | + |
| | P. chryserydros | 1 |
| | P. trifasciatus | + |
| Butterflyfish | Chaetodon citrinellus | + |
| | C. lunula | + |
| | C. ornatissimus | + |
| | C. reticulatus | + |
| | C. vagabundus | 1 |
| | C. trifascialus | + |
| | Heniochus chrysostomus | + |
| Moorish Idol | Zanclus cornutus | + |
| Surgeonfish | Acanthurus glaucopareius | + |
| | A. guttatus | + |
| | A. lineatus | 5 |
| | A. nigrofuscus | 41 |
| | A. triostegus | 4 |
| | Ctenochaetus striatus | 45 |
| | Naso literatus | + |
| | Zebrasoma scopas | 3 |
| | Z. veliferum | + |

APPENDIX E (continued)

| COMMON NAME | SCIENTIFIC NAME | |
|---|---|---|
| Rabbitfish | Siganus spinus | + |
| Damselfish | Abudefduf sexfasciatus | + |
| | Amphiprion melanopus | + |
| | Stegastes albifasciatus | 70 |
| | Stegastes fasciolatus | 14 |
| | S. nigricans | 3 |
| | Glyphidodontops cyaneus | 56 |
| | Glyphidodontops glaucus | 12 |
| | G. leucopomus | 30 |
| | Plectroglyphidodon lacrymatus | + |
| Wrasses | Anampses caeruleopunctatus | + |
| | Cheilinus oxycephalus | + |
| | C. trilobatus | + |
| | Coris aygula | + |
| | Epibulus insidator | + |
| | Gomphosus varius | 4 |
| | Halichoeres margaritaceus | + |
| | H. marginatus | 4 |
| | H. trimaculatus | + |
| | Hemigymnus melapterus | + |
| | Labrichthys unilineatus | 3 |
| | Labroides bicolor | + |
| | L. dimidiatus | + |
| | Thalassoma fuscum | + |
| | T. hardwickei | 29 |
| | T. quinquevittatum | 7 |
| Parrotfish | Scarus chlorodon | + |
| | S. psitticus | + |
| | S. jonesi | + |
| | S. ovicaps | + |
| | S. frenatus | + |
| | S. sordidus | + |
| | Scarus spp. (juveniles) | 4 |

APPENDIX E (continued)

| COMMON NAME | SCIENTIFIC NAME | |
|---|---|---|
| Blenny | Unidentified | + |
| Triggerfish | Rhineacanthus aculeatus | 1 |
| | R. rectangulus | + |
| Filefish | Oxymonacanthus longirostris | + |
| Trunkfish | Ostracion meleagris | + |
| Pufferfish | Canthigaster solandri | + |

TOTALS 61 species 338 individuals

20 species observed on transect

41 species observed within 20 m of the transect during subsequent 20 minute search

## CHECKLIST OF SAMOAN CORAL GENERA AND SPECIES

Genus *Stylocoeniella*
Species *armata*

Genus *Psammacora*
*contigua*
*folium*
*nietstraszi*
*superficialis*
var. *tutuilensis*

*Genus *Stylophora*
*mordax*

*Genus *Seriatopora*
*hystrix*

*Genus *Pocillopora*
**ankeli*
*brevicornis*
cf. *bulbosa*
*damicornis*
*danae*
**eydouxi*
cf. *setchelli*
**verrucosa*
*woodjonsi*

*Genus *Acropora*
*abrotanoides*
*africana*
*aculeus*
*arbuscula*
*aspera*
*bruggemanni*
*ceralis*
*clathrata*
**corymbosa*
*crateriformis*
*cuspidata*
**cytherea*
*delicatula*
*digitifera*
*diversa*
*exigua*
*formosa*
*fruticosa*
**granulosa*
*horrida*
**humilis*
**hyacinthus*
* *A. nana*
*nasuta*
*nobilis*
*pagoensis*
* *palifera*
*palmeri*
*paniculata*
* *pinquis*
*pulchra*
*rambleri*
*robusta*
*rotumana*
*schmitti*
*spicefera*
*splendida*
*squarrosa*
*surculosa*
*teres*
*valida*
*variabilis*

*Genus *Astreopora*
*cucullata*
*listeri*
*myriophthalma*

Genus *Montipora*
*berryi*
*bilaminata*
*caliculata*
*composita*
*ehrenbergi*
*elschneri*
*foveolata*
*marshallensis*
*pulcherrima*
*scutata*
*socialis*
*spumosa*
*trabeculata*
*tuberculosa*
*venosa*
*verrilli*

Genus *Pavona*
*clavus*
*decussata*
*divaricata*
*duerdeni*
*frondifera*

Response: The sanctuary manager and staff members will be appropriately trained to respond quickly should such emergencies arise.

Comment: Draft Designation Document (DEIS p. A-1ff): Article 1 of the draft designation document mentions a list of prohibited activities in Article 4; however, Article 4 does not include such a list. Also, Article 5 presents a different regulatory scheme than that found in the draft proposed regulations (DEIS p. 45ff). We urge that the draft regulations presented in the DEIS, modified in response to our suggestions above, be the implementing regulations for the proposed sanctuary.

Response: A change reflecting the document has been incorporated into the proposed regulations.

Comment: Permit Procedure Guidelines (DEIS p. H-3): The criteria presented in section VII of the guidelines differ from those presented in the proposed draft regulations (DEIS p. 50). These differences should be reconciled.

Response: The evaluation criteria is being revised.

Comment: Page 16. The brief description of avifauna is somewhat confusing, when compared with the listing of species in Appendix E, Table 1. The text indicates the presence of 60 avian species (listed by the U.S. Fish and Wildlife Service), all of which are either "seabird" or "waterfowl." Appendix E, however, specifically notes the presence of several species which are not seabirds or waterfowl (e.g., bulbuls, starlings, honeyeaters). It would be helpful to indicate in the DEIS discussion that the area's avifauna include land, as well as water-related species.

Response: The text of the DEIS contains a general discussion of the Samoan birdlife, while Appendix E refers to the species found around Fagatele Bay itself.

Comment: Page 16. The waters around Tutuila Island are described as "nutrient poor." Does this condition indicate that sea turtles do not, in fact, depend on these waters for foraging (as is stated on page 31)?

Response: As with most oceanic islands, the waters surrounding them are nutrient poor when compared to continental islands. This does not mean, however, that life cannot exist in those waters. The waters are more than capable of sustaining a variety of species, but not the density as in the more productive continental off-shore areas.

Comment: Page 17. Sperm whales should be identified as an "endangered" species.

Response: Comment accepted and the text revised.

Comment: Page 17. The information on benthic community species other than coral is extremely sketchy. Although Appendix E does list coral and fish species, there is no information given on "anemones, lobsters, limpets, clams, octopi, sea cucumbers, and sea urchins." Are there any data on the abundance of these species? Are any of them fished for subsistence?

Response: There is no data referring to the other invertebrates you mention. In Fagatele Bay, some lobster, giant clams, and octopi are fished on a subsistence basis. But, the numbers are unknown.

Comment: Page 19. What is the meaning of "age-cohort" structure?

Response: This is an ecological/demographical term referring to age class structure of a given population.

Comment: Page 20. What is meant by "income transfers," in describing the sources of income to the village economy?

Response: This refers to the ongoing process of switching from subsistence liing to a cash-based economy.

Comment: Page 30. There is no explanation of the effect (if any) of the designation of Fagatele Bay as a "marine park" by American Samoa's Department of Parks and Recreation.

Response: As stated in the section on the Legal/Institutional Background (Part II-D), territorial designation of a "marine park" merely allows the Department of Parks and Recreation to charge usage fees and to enforce any regulations consequently written for the area.

Comment: Pages 36-37. Concerning the implementation of the proposed Sanctuary's goals and objectives: will one or two boats be acquired for the purposes of 1) monitoring and enforcing proper uses, and 2) conducting a public awareness program?

Response: Two boats will be acquired for these purposes.

Comment: Pages 38-39. Portions of the listed responsibilities of the Sanctuary Programs Division (SPD) with regard to the proposed Sanctuary are unclear. Of the responsibilities listed, numbers 3, 4, and 8 appear to be national in scope, rather than singularly related to the Fagatele Bay proposal.

Response: Corrections have been incorporated into the FEIS.

Comment: Page 41. What does the abbreviation "OMR" denote?

Response: OMR stands for the American Samoa Office of Marine Resources.

Comment: Page 49. The draft regulations for the proposed Sanctuary skip from §941.8 to §941.10, deleting §941.9 "Other Authorities." Is this omission intentional?

Response: Section 941.9 was inadvertently left out in the printing of the DEIS.

Comment: Pages 83,97. The description of boundary alternative #3 is so limited that making a reasoned judgment as to the proposed Sanctuary's parameters is very difficult. A fuller explanation of Fagulua Bay's "extensive representation of the deepsea habitat" would be very useful indeed.

Response: NOAA recognizes the need for further information. However, quantitative information regarding this area is non-existent. Most of the qualitative information was derived from maps and anecdotal information.

Comment: Page 90. Defenders was unable to locate any discussion of the projected costs of implementing the proposed Sanctuary's management plan, and to whom those financial responsibilities fall. The only mention of the cost of management is found here, where "800,000 in Federal funds over the next five years, subject to

# APPENDIX A

## Designation Document for the Fagatele Bay National Marine Sanctuary

Under the authority of the Marine Protection, Research and Sanctuaries Act of 1972, PL-92-532, (the Act) certain waters off American Samoa are hereby designated a National Marine Sanctuary for the purposes of preserving and protecting this unique and fragile ecosystem.

### Article 1. Effect of Designation

The designation of the Fagatele Bay National Marine Sanctuary (the Sanctuary) described in Article 2, establishes the basis for cooperative management of the area by the Territory of American Samoa (Territory) and the National Oceanic and Atmospheric Administration (NOAA).

Within the area designated as the Sanctuary, the Act authorizes promulgation of such regulations as are reasonable and necessary to protect the values of the Sanctuary. Article 4 of the Designation lists those activities which may require regulation, but the listing of any activity does not by itself prohibit or restrict it. Restrictions or prohibitions may be accomplished only through regulation, and additional activities may be regulated only by amending Article 4.

### Article 2. Description of the Area

The Sanctuary consists of 163 acres (.25 square miles) of bay area off the southwest coast of Tutuila Island, American Samoa. The precise boundaries are defined by regulation.

2) Uses that pose the least risk to loss of life and damage to property shall be preferred over uses that pose such risks.

3) Development permitted in areas prone to flooding shall be designed to allow passage of water to the extent feasible.

Structures to protect existing development against flooding and erosion shall only be permitted if:

1) There is significant risk to public health and safety.

2) There are no feasible environmentally preferable alternatives;

3) Habitat that may be effected are identified and their values evaluated.

4) Adverse effects on nearby areas are minimized.

5) Alterations of the natural shoreline are minimized.

6) Adverse effects on habitats, streams and drainage are minimized.

5. Fisheries Development

Objective

Promote fisheries development in a manner consistent with sound fisheries management.

Policy

Shoreland areas suitable and necessary for the support of fishery development shall be reserved for such use.

Fisheries development shall be guided by a fisheries management program which conserves stocks, protects marine habitats, and maintains sustained yields.

6. Slope Erosion

Objectives

Reduce soil erosion.

Policy

Road building and construction activities that severely alter land contours, occur in steep areas, or may otherwise promote soil erosion shall be minimized and controlled to reduce or eliminate soil erosion.

Clearing, grading, or construction on slopes greater than 40% shall be avoided and be permitted only if no feasible environmentally preferable alternatives to the proposed activity exist.

All clearing, grading, or construction on slopes shall use best available techniques to avoid or minimize soil erosion. These shall include, but not necessarily be limited to:

1) Minimize onsite disturbance through careful design of road drainages utilizing knowledge of soils, vegetation and terrain and other available techniques.

2) Retain soil through use of retaining walls and other applicable techniques to minimize slope cutting; and

3) Control offsite movement of soil through replanting disturbed land immediately after construction with soil stabilizing plants and other available techniques.

7. Major Facility Siting

Objective

Assure the proper siting of major facilities.

Policy

Major facilities shall be sited and designed to minimize adverse environmental and social impacts and promote orderly and efficient economic development. Major facilities not dependent on a waterfront location shall be located elsewhere unless no feasible alternative sites exist; water-dependent major facilities will be accomodated through planning. Conservation of resources shall be a primary goal of the Territory.

The Territory shall recognize identified regional benefits and national interests in the siting of major facilities and shall adequately consider them in major facility siting decisions.

8. Agricultural Development

Objective

Promote agricultural development in a manner consistent with sound conservation practices.

Policy

Commercial and subsistence agriculture shall be encouraged and improved on lands suitable for cultivation. Agricultural activity shall be accompanied by sound agricultural practices designed to protect land and water resources and maintain crop yields, which include:

1) cultivation on suitable slopes;

2) use of adequate ground cover to prevent soil erosion;

3) proper use of pesticides, herbicides, and fertilizers; and

4) techniques to maintain soil fertility, e.g., fallow periods.

## RESOURCES

9. Reef Protection

Objective

Protect and restore coral reefs.

Policy

Coral reefs and other submerged lands shall not be dredged, filled, or otherwise altered or channelled unless it can be clearly demonstrated that there is public need, there are no feasible environmentally preferable alternatives, and unless measures are taken to minimize adverse impacts. Coral reefs shall be protected from sedimentation, overfishing, runoff, and the impacts resulting directly and indirectly from other activities to the extent feasible. Degraded reefs shall be restored wherever feasible.

10. Recreation/Shorefront Access

Objective

Improve and increase recreation opportunities and shorefront access for both residents and visitors.

Policy

The acquisition, siting, development and maintenance of varied types of recreation facilities that are compatible with their surrounding landscape and land uses, and which serve the recreation and shorefront access needs of villages and urban areas shall be promoted. Acquisition and/or use agreements and minimal development of passive recreation sites such as marine and wildlife conservation areas, scenic overlooks, trails, parks, and historic sites shall also be promoted.

Public access to and along the ocean shall be improved and increased. Beach areas suitable for recreation use shall be reserved for such use and physical access to these areas shall be provided where feasible. Visual access to the ocean from the road parallel to and near the shoreline shall be maintained where feasible.

11. Water Quality

Objective

Maintain and, where necessary, restore high water quality.

Policy

Territorial and Federal water quality standards shall be the

standards of American Samoa in the coastal zone. Consistent with these standards, degraded water quality shall be restored to acceptabl levels and potential threats to water quality shall be prevented from degrading water quality where feasible.

12. Marine Resources

Objective

Protect marine resources for present and future generations.

Policy

Living marine resources and their habitats shall be protected from overharvesting or degradation.

No taking of marine mammals, or endangered or threatened species, including the Green Sea and Hawksbill Turtles, shall be allowed.

13. Drinking Water Quality

Objective

Provide and maintain safe drinking water.

Policy

Drinking water sources, both above and below ground, shall be protected from contamination due to sedimentation, salt water intrusion, or other sources of pollution.

Drinking water systems shall be improved to protect public health and welfare.

14. Unique Areas

Objective

Protect unique areas and their values from insensitive development.

Policy

Unique areas, including wetlands, mangrove swamps, aquifer recharge areas, critical habitat areas, floodplains, streams, watersheds and nearshore waters, shall be protected against significant disruption of their physical, chemical and biological characteristics and values. Only uses dependent on such areas shall be permitted.

Development in areas adjacent to unique areas shall be designed and sited to prevent impacts that would significantly degrade such area.

15. Archeological/Cultural/Historic Resources

Objective

Protect the archeological, cultural, and historic resources of

American Samoa.

Policy

Significant Samoan archeological, cultural, and historic sites, artifacts, and life-style shall be protected and preserved.

16. Air Quality

Objective

Maintain high air quality.

Policy

Territorial and Federal air quality standards shall be the standards of American Samoa in the coastal zone. Variance from those standards will be considered where such variance is justified, consistent with these standards, and will not result in significant air quality degradation.

## SPECIAL AREAS

1. Pago Pago Harbor

Objective

Develop the Pago Pago Harbor area in a way that emphasizes its irreplaceable value as a working port and safe harbor, and protects its natural resources, including water quality.

Policy

The following use priorities shall be established for Pago Pago Harbor as delineated by a line drawn across the bay from the Rainmaker Hotel to the jetty at Leloaloa and the main road paralleling the shoreline.

1) Water dependent uses and activities shall have highest priority;

2) Water-related uses and activities shall have second priority;

3) Uses and activities which are neither water dependent nor water related, but which are compatible with water dependent and water related uses and activities shall receive third priority. All other uses and activities shall have lowest priority. Such uses shall be encouraged to locate or relocate in other designated commercial, industrial or residential areas.

2. Pala Lagoon

Objective

Enhance and restore the water quality, fish and wildlife, and recreation values of Pala Lagoon.

Policy

The following use priorities shall be established for Pala Lagoon, and its adjacent wetlands and beaches:

1) Non-polluting, non-destructive uses and activities, such as fishing, swimming, shelling, mariculture, boating (including launching facilities and access) and necessary restoration measures shall receive highest priority.

2) Those uses and activities which would interfere with the natural characteristics and values of the Lagoon and are not necessary for restoration or recreation shall receive lowest priority.

3) The villages adjacent to the lagoon shall receive high priority for hookup to government sewer system.

Table E-1. Commonly Sited Birds around Fagatele Bay

| COMMON NAME | SAMOAN NAME | SCIENTIFIC NAME | Areas of Use 1* | 2* | 3* | 4* | 5* |
|---|---|---|---|---|---|---|---|
| Brown booby | Fua'o | Sula leucogaster | N-F | | | | |
| Red footed booby | | Sula sula | N-F | | | | |
| Grey-backed tern | | Sterna lunata | N-F | | | | |
| Black noddy | | Anous tenuirostris | N-F | | | | |
| Blue-grey noddy | Laia | Procelsterna cerulea | N-F | | | | |
| Great frigate bird | | Fregata minor | N-F | | | | |
| Brown noddy | Gogo | Anous stolidus | N-F | N | | | |
| White-tern | Manu sina | Gygis alba | N-F | N | | | |
| White-tailed tropic-birds | Tava'e | Phaethon lepturus | N-F | N | | | |
| White rumped swiftlet** | | Collocalia spodiophygia | | | N-F | | |
| Red vented bulbul** | | Pycnonotus cafer | | | N-F | | |
| Samoan starling** | | Aplonis Atrituscus | | | N-F | | |
| White collared kingfisher** | | Halcyon chloris | | | N-F | | |
| Cardinal honeyeater** | | Myzomela dibapha (?) | | | | N-F | |
| Wattled honeyeater** | | Foulehaio carunculata | | | | N-F | |
| Reef heron** | | Egretta sacra | | | | | F |
| Wandering tattler** | | Tringa incana | | | | | F |
| Plover** | | Pluvialis sp. | | | | | F |
| Turnstone** | | Arenaria interpres | | | | | F |

* 1-Sea Cliffs/Bay
2-Coastal Forests
3-Interior Slopes and Valleys
4-Coastal Plain
5-Beach and Nearshore reefs

** Specifically noted along Leone Bay about 2 miles northwest of Fagatele Bay.

N=Nesting
F=Feeding

Source: AF & AECOS 1980, USAED 1980.

## FISH SPECIES RECORDED ON REEF FRONT AND REEF FLAT, FAGATELE BAY, 1978

### FAGATELE BAY REEF FRONT

**Survey Date - September 25, 1978 (just prior to Acanthaster infestation)**

**The 100-meter transect line was laid on the 40-foot depth contour on the east side of the bay.**

The following species were identified and counted on the transect or observed during a subsequent 20 minute search (designated by "+").

| COMMON NAME | SCIENTIFIC NAME | |
|---|---|---|
| Trumpetfish | Aulostomus chinensis | + |
| Lae | Scomberoides lysan | + |
| Groupers | Anthias pascalus | + |
| | Anyperidon leucogrammicus | 1 |
| | Cephalopholis argus | + |
| | C. urodelus | + |
| | Gracilia albimarginata | + |
| Snappers | Aphareus furcatus | + |
| | Caesio xanthonatus | + |
| | Lutjanus bohar | + |
| | Macolor niger | + |
| | Pterocaesio kohleri | 9 |
| | Gnathodentex aureolineatus | + |
| | Monotaxis grandoculis | + |
| Rudderfish | Kyphosus cinerascens | + |
| Goatfishes | Mulloidichthys flavolineatus | 2 |
| | Parupeneus bifasciatus | + |
| | Parupeneus chryserydros | 1 |
| | P. trifasciatus | + |
| Hawkfishes | Paracirrhites arcatus | 5 |
| | P. forsteri | 2 |

Response: Fagalua Bay was not included in the Preferred Alternative because the American Samoa Government wished to include only Fagatele Bay. Information on Fagalua Bay is also much less available than that on Fagatele Bay. Given these two facts, it would be premature to include Fagalua Bay at this time.

Moving the boundary out to 20 fathoms would present logistical problems for enforcement. Land-based markers are much easier for users and enforcement agents alike to distinguish. In addition, the waters around Fagatele Point, especially on its eastern side, are too rough for using buoys as boundary markers.

Comment: Invertebrates (DEIS p. 19): The discussion of invertebrates other than coral would mislead the reader into thinking that these other invertebrates are of little significance to this ecosystem. While we understand that little study of the invertebrates of the site has been conducted, we urge that a discussion based on invertebrate communities in other similar areas be included in the FEIS and that appropriate management measures be suggested.

Response: NOAA agrees that the DEIS contains little information regarding invertebrates other than coral. However, information regarding invertebrate communities within the bay is lacking. Both DEIS and regarding FEIS present discussions as complete as current data will allow. Study 1.1 of the Resource Studies Plan is aimed at obtaining a more complete biological inventory of the area.

Comment: Marine Park(DEIS p. 29): More information should be included regarding the practical significance of the designation of Fagatele Bay as a Marine Park under the Coastal Zone Management Program of the Territorial government. Specifically, we request a description of any current or proposed regulations implementing this designation and the ability of the Territorial government to enforce such regulations.

Response: As stated in Part II (Legal Institutional Background) designation of the area as a marine park carries with it no regulatory authority. It merely calls attention to the special significance of the area and allows the DPR to charge usage fees and enforce any regulations that may later be promulgated by the ASG specific to the area.

Comment: Mangroves (DEIS P. 31): The FEIS should contain more information regarding the distribution and role of the mangroves which apparently line part of Fagatele Bay.

Response: More information regarding the mangrove populations in the bay will be gathered in Study 1.1 of the Resource Studies Plan.

Comment: Land Access to the Site (DEIS p. 38): Since the construction of any trails or roads in the cliff area surrounding the site could have impacts upon the resources of the site, we request a discussion of the process by which the feasibility of overland access will be evaluated and the opportunities which the public will have for participating in this process. We urge full participation.

Response: Please see Generic Response E.

Comment: Scientific Research Committee (DEIS p. 42): We suggest that the results of research at the site be integrated with the interpretive elements of the management plan. For this reason, we urge that a person competent in interpretive approaches and familiar with the site be a representative on the Scientific Research Committee.

Response: NOAA agrees and the FEIS reflects this comment.

Comment: Prohibited Activities (DEIS p. 48): We urge that subparagraph (i) include invertebrates other than coral. We believe that any taking of such invertebrates should be subject to review for impact on the site's resources.

Response: A change reflecting the comment has been incorporated into the proposed regulations.

Comment: Permit Procedures (DEIS p. 50): It would appear from the language in the DEIS that permits will be required for activities prohibited under 941.8 and for an unspecified set of activities. Permits should not be required for this latter set of activities. We recommend adoption of the language used in the regulations implementing currently designated, specifically the language regarding permits in the regulations implementing the Looe Key National Marine Sanctuary.

Response: A change reflecting the comment has been incorporated into the proposed regulations.

Comment: Linkage with other Marine Reserve Systems (DEIS p. 60): We suggest that the Sanctuary Program Division is the appropriate focus for linking the program of the proposed sanctuary with other similar programs around the world. Furthermore, emphasis should be placed upon linkage among designated National Marine Sanctuaries, so that mistakes will not be repeated and successes will be shared.

Response: Comment accepted.

Comment: Exposed Reef Flat (DEIS p. 67): The last line of this section contains a typographical error. We sugggest that this last line read "when the flat is submerged to depths of 30 cm."

Response: The correction has been made in the FEIS.

Comment: Water Quality Monitoring (DEIS p. 74): In order to optimize the effectiveness of this project, we suggest that there be an explicit link with the water quality monitoring project at the Key Largo National Marine Sanctuary. In addition, we suggest that the project call for creating the ability to mobilize research efforts quickly in the event of a sudden event. The recent sudden decimation of the Diadema population in the Florida Keys and of coral reefs in the Eastern Tropical Pacific clearly indicates a need for such an ability.